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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRIAN KWANGSHIK HONG and RAN SOO HONG

Appeal 2009-007290
Application 10/675,746
Technology Center 2400

Before JOHN C. MARTIN, MAHSHID D. SAADAT,
and THOMAS S. HAHN, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 or for filing a request for rehearing as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellants appeal under 35 U.S.C. § 134(a) from a Non-Final Rejection of claims 6-13, which constitute all the claims pending in this application. Claims 1-5 are cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

STATEMENT OF THE CASE

Appellants' invention relates to a peripheral viewing and sensing system for a vehicle, such as an automobile. The system includes a pair of digital cameras, each positioned on the exterior of the vehicle where a side view mirror would typically be mounted, and an additional digital camera mounted on the vehicle roof above the rear window. The driver of the vehicle can panoramically view trailing traffic by observing video displays that are associated with each of the cameras and mounted inside the vehicle passenger compartment. If the driver activates a turn signal for a lane change, a warning message will be provided within the passenger compartment if any of one or more phototransistors positioned at the rear of the vehicle detect another vehicle within a predetermined range of the vehicle. (*See Abstract.*) Claims 6 and 9, which are illustrative of the invention, read as follows:

6. A peripheral viewing system for a vehicle wherein said vehicle includes two opposing sides, a steering wheel positioned within a passenger compartment and a rear, the viewing system comprising:

a pair of cameras, one of said cameras mounted on one of said sides of the vehicle, another of said cameras mounted on another of said sides of the vehicle;

a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated one of said cameras;

a microprocessor means in communication with each of said cameras and said displays for continuously processing images received from each of said cameras and for continuously transmitting said images to each of said displays.

9. The peripheral viewing system according to claim 8 wherein said warning means comprises:

a phototransistor mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means;

an audible alarm means electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle.

The Examiner relies on the following prior art in rejecting the claims:

Tsuchiya	US 5,530,420	Jun. 25, 1996
Shimizu	EP 1 065 642 A2	Jan. 3, 2001

Claims 6-8 stand rejected under 35 U.S.C. § 102(b) as anticipated by Shimizu.

Claims 9-13 stand rejected under 35 U.S.C. § 103(a) as obvious over Shimizu in view of Tsuchiya.

Rather than repeat the arguments here, we make reference to the Brief (filed Oct. 10, 2008) and the Answer (mailed Jan. 12, 2009) for the respective positions of Appellants and the Examiner.² Only those arguments actually made by Appellants have been considered in this decision.

² A previous Appeal Brief (filed Jan. 24, 2008) has not been considered as the arguments presented therein are obviated by subsequently entered grounds for rejection.

Arguments that Appellants did not make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUES

Appellants present substantive arguments for the patentability of claims 6 and 8-12. Appellants present no substantive arguments for the patentability of claims 7 and 13, relying on the arguments made for the claims from which they depend. The issues presented by Appellants' arguments are:

1. Does Shimizu disclose “a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated one of said cameras,” as recited in claim 6?

2. Does Shimizu disclose “a warning means for alerting a driver of an approaching vehicle,” as recited in claim 8?

3. Would Shimizu in view of Tsuchiya have made obvious to one of ordinary skill in the art

a phototransistor mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means; [and]

an audible alarm means electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle[.]

as recited in claim 9?

4. Would Shimizu in view of Tsuchiya have made obvious to one of ordinary skill in the art “a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm

means if said trailing vehicle is within the predetermined range of said vehicle,” as recited in claim 10?

FINDINGS OF FACT (FF)

Shimizu

1. Shimizu discloses cameras 10 mounted at the front left and front right of a vehicle (Fig. 11; ¶ [0283]) and an information display device 4 having segmented display areas in which the images output from these cameras are simultaneously displayed (Fig. 12 (2); ¶ [0284]), the information display device being vertically segmented into a front left image L and a front right image R (Fig. 12 (2); ¶ [0285]).

2. Shimizu discloses a parking assist ECU 76 that detects an obstructive object by means of an obstacle sensor, such as a back sonar 17 or a corner sensor 18, that informs the driver of the presence of the obstructive object (Figs. 2, 19; ¶ [0295]). Corner sensor 18 utilizes ultrasonic waves to detect an obstructive object (¶ [0257]).

Tsuchiya

3. Tsuchiya discloses a stereoscopic optical system 10 comprising CCD cameras 11a, 11b, 12a, 12b (Fig. 4; col. 6, ll. 20-24).

4. Tsuchiya discloses that the CCD cameras 11a, 11b measure positions within 2-20 meters (col. 6, ll. 35-37) and the CCD cameras 12a, 12b measure positions within 10-100 meters (col. 6, ll. 37-38).

5. Tsuchiya discloses that the CCD cameras 11a, 11b, 12a, 12b are used to detect the distance from the vehicle 1 to an object such as another vehicle 300 (Fig. 15).

PRINCIPLES OF LAW

“The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416. “If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.* at 417. “[T]he analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 418. “A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *Id.* at 421 (citation omitted).

[T]he [US]PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.

In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997). “Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim.” *SuperGuide Corp. v. DirectTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

ANALYSIS

Claim 6

Appellants contend that Shimizu “does not disclose a pair of displays but instead a single segmented display for depicting images from the respective cameras” (Br. 6). Appellants further point to the claimed invention “combin[ing] the convenience of camera monitoring with the comfort and familiarity of side view mirrors allowing a driver to observe trailing vehicles by glancing at the same locations as one would if driving a vehicle with conventional mirrors” (Br. 6).

The Examiner correctly points out that the claim contains no limitations relative to positioning the displays to emulate conventional side view mirrors (Ans. 10). Furthermore, in examining a claim, the Examiner gives the language of the claim its broadest reasonable interpretation in view of the specification, *see Morris*, 127 F.3d at 1054, but may not import limitations from the specification into the claim, *see SuperGuide*, 358 F.3d at 875. Nothing recited in claim 6 requires that the displays be physically separated from each other or precludes the use of a single physical device with a partitioned screen for the recited “pair of video displays” as disclosed by Shimizu (FF 1).

The Examiner’s explanation and findings regarding claim 6 (Ans. 3-5, 9-12) are reasonable and persuasive and we therefore adopt them as our own. Accordingly, we sustain the rejection of claim 6, as well as claim 7, not separately argued (Br. 5-7).

Claim 8

Appellants contend that Shimizu’s disclosure of “a device for detecting the presence of an obstructive objective [sic], [is] not a means for

alerting a driver of an approaching vehicle, as claimed” (Br. 7-8). The Examiner responds that an “approaching car,” as recited in claim 8, is an example of an obstructive object (Ans. 12) that would be detected by Shimizu’s parking assist ECU (*see* FF 2), a position to which Appellants did not respond by filing a Reply Brief. We agree with the Examiner and adopt the Examiner’s findings as our own. Therefore, we sustain the rejection of claim 8.

Claim 9

The Examiner concludes that it would have been obvious to one skilled in the art to combine Shimizu’s parking assist ECU with Tsuchiya’s vehicle detection means for alerting a driver of an approaching vehicle, resulting in the invention claimed in claim 9 (Ans. 6-7, 12-17). Appellants contend that nothing in either Shimizu or Tsuchiya teaches or suggests a phototransistor mounted on each side of a vehicle, adjacent to the rear of the vehicle, to detect a trailing vehicle within a predetermined range of the vehicle (Br. 10). Appellants further argue that the references do not disclose any suggestion or motivation to make the combination (Br. 9, 11) and that the Examiner has exercised impermissible hindsight in making the combination (Br. 11-13).

Shimizu discloses ultrasonic corner sensors 18 to detect obstructive objects (FF 2). The corner sensors are “mounted on each side of said vehicle, adjacent the rear thereof,” as recited in claim 9 (*see* Shimizu Fig. 1). Consistent with the discussion of claim 8, *supra*, a trailing vehicle is an example of an obstructive object that would be detected by such a sensor. Although Shimizu does not disclose that the corner sensors 18 are phototransistors, Tsuchiya discloses an optical system with CCD cameras

(FF 3) used for detecting an obstructive object within a predetermined distance of a vehicle (FF 4, 5) and that the obstructive object may be another vehicle (FF 5). Furthermore, the Examiner found that Tsuchiya's "photoelectric sensor[] elements 11a, 11 b, 12a and 12b . . . have photoelectrical components like phototransistors to detect visual data." (Ans. 15.) Appellants, who did not file a Reply Brief, have not asserted any error in this finding.

As found by the Examiner (Ans. 12-13), in view of the overall teaching value of Shimizu and Tsuchiya, taken as a whole, the use of photoelectric sensor elements, including phototransistors, to detect the presence of an obstructive object, such as "a trailing vehicle within a predetermined range of said vehicle," as recited in claim 9, would have been obvious. Furthermore, we find that the selection of the type of photosensor from among the available options is a selection within the ability of a person of ordinary skill in the art, *see KSR*, 550 U.S. at 418. Appellants' argument that "[t]he examiner has not presented a convincing line of reasoning as to why the applicant could readily combine a construction detection means for calculating positions of nearby objects using triangulation with a parking assisting device to form the peripheral viewing system according to the claimed invention" (Br. 11) is unpersuasive because Tsuchiya is being relied on only for a suggestion of replacing Shimizu's corner sensor 18, which employs ultrasonic waves, with an optical corner sensor that employs phototransistors.

Appellants' reliance on the asserted absence from the references of a suggestion or motivation to make the combination is misplaced, *see id.* at 419. Similarly, we find no impermissible hindsight in the Examiner's

reasoning, finding it to be a common sense application of the teaching value of Shimizu and Tsuchiya, *see id.* at 421. We find that claim 9 recites a combination of familiar elements according to known methods that does no more than yield predictable results, *see id.* at 416, that can be implemented by a person of ordinary skill, *see id.* at 417. Accordingly, we sustain the rejection of claim 9.

Claim 10

Appellants contend that the Examiner has provided no explanation directed to the obviousness of the recited limitations of claim 10 (Br. 14). We agree. In particular the Examiner has provided no explanation regarding the obviousness of “*a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle*” (emphasis added). (See Ans. 7-8, 17-18.) In other words, the Examiner provides no rationale as to why it would have been obvious to interconnect the functions of the turn signal switch means and the audible alarm means, as required by the claim. Accordingly, we do not sustain the rejection of claim 10 or claims 11-13, dependent thereon.

ORDER

The decision of the Examiner to reject claims 6-9 is affirmed. The decision of the Examiner to reject claims 10-13 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2010).

AFFIRMED-IN-PART

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